



Your ref: DA26/26258
Our ref: DOC26/193227

Catriona Shirley
Department of Planning, Housing and Infrastructure
Locked Bag 5022
PARRAMATTA NSW 2124

By email: Add email

Attention: Catriona Shirley

Request for Additional Information - DA26/26258 Graincorp Bulk Liquid Terminal Repurposing

Dear Ms Shirley,

I am writing in response to your request for the Environment Protection Authority (EPA) to comment on the above Development Application (DA). The applicant, Graincorp, seeks development approval to undertake modifications to an existing bulk liquids terminal to facilitate the storage of liquids (animal and vegetable based oils) pending shipping exports.

The EPA is reviewing the development application which includes the following documents:

- *Graincorp Bulk Liquid Terminal Repurposing, Tom Thumb Road, Port Kembla*. Prepared by GLN Planning dated 4 March 2026.
- *Air Quality Impact Assessment*. Prepared by Air Environment, dated 17 October 2025

The EPA has determined that insufficient information has been provided to assess the environmental impacts of the proposal. The EPA requests additional information per section 43 of the *Environmental Planning and Assessment Regulation 2021*. This additional information relates to the proposed use of diesel fired boilers to provide 3.8 MW of power to the heating plant at the premises, the associated Air Quality Impact Assessment. In EPA's experience diesel boilers and diesel power equipment are more polluting than other fuels and have been used for back up purposes, not the primary power or heating equipment. Accordingly, the EPA has requested a benchmarking assessment against similar operations. Detailed comments and the associated requested information are listed in the attachment.

If you have any questions about this request, please contact Matt Davidson on 02 4224 4104.

Yours sincerely

9/4/2026

Greg Newman
Acting Manager

Enclosure: Attachment – Requested Additional Information

NSW Environment Protection Authority
As the environmental steward and regulator of our State we are committed to a sustainable future.
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Attachment: Requested Additional Information

The EPA has identified issues with the Statement of Environmental Effects and the Appendix F, Air Quality Impact Assessment. These are:

1. a robust justification for the selection of diesel fired boilers has not been provided.
2. a robust demonstration that the POEO Clean Air Regulation limits will be achieved has not been provided.
3. exceedances of the PM₁₀ (24 hour) impact assessment criteria are predicted.
4. VOC emissions from the proposed heating plant have not been assessed.
5. the NOx conversion method has not been described.

The EPA requires the following additional information, numbered 1 – 5 below.

1. Justification for the selection of diesel fired boilers has not been provided.

The Statement of Environmental Effects (SEE) explains that two (2) new boilers (2.5 MW and 1.3 MW) are proposed to operate on diesel fuel. These boilers represent a 15 fold increase from the existing 250 kW diesel fired boiler at the premises. The SEE identifies LPG and Diesel as viable fuel options for the project. Additionally, the SEE states that the cost of infrastructure upgrades for natural gas and electric options make them unviable (Table 3A). No detailed evidence has been provided in support of these statements.

The justification provided for the selection of diesel fuel has been based, in part, on Greenhouse gas emissions and a transition to renewable diesel fuel. However, no detailed breakdown of greenhouse gas emissions between fuels has been provided and no commitment to renewable diesel provided.

Diesel fuel has higher Scope 1 Greenhouse gas emissions than LPG, natural gas, and electric options which would result in increased emissions until any transition was initiated. This also appears inconsistent with the listed Graincorp company target to reduce Scope 1 and 2 emissions by 42% by 2030. The SEE also outlines that renewable diesel fuel is not a viable option at this time due to limited supply and costs. No commitment or transition pathway timing is offered, only “*It will be at the determination of the relevant business leaders*” (page 26).

Minimising Air Pollutant Emissions

Diesel fuel combustion emissions contain pollutants to which human exposure should be minimised. These are air toxics, particulates, and sulphur dioxide.

i. Air toxics.

The *EPA Approved Methods for Modelling and Assessment for Air Pollutants in NSW* (the Approved Methods), provides a list of air pollutants that are classified as principal toxic air pollutants. These air pollutants are defined as principal toxic air pollutants on the basis that they are carcinogenic, mutagenic, teratogenic, highly toxic or highly persistent in the environment. The Appendix F Air Quality Impact Assessment (AQIA) identifies emissions of:

- PAHs, Arsenic, Beryllium, Cadmium, and dioxins from the proposed diesel boilers; and
- Benzene from the proposed diesel storage tank.

These air pollutants are classified as principal toxic air pollutants. The Approved Methods requires that principal toxic air pollutants must be minimised to the maximum extent achievable through the application of best-practice process design and/or emission controls.

The AQIA predicts ground level concentrations of Beryllium at, and beyond the site boundary that are 95% of the impact assessment criteria. This is a significant ground level concentration that is

approaching the impact assessment criteria for Beryllium (a principal air toxic) at, and beyond the site boundary. The significance of the ground level concentration is not consistent with minimising emissions through the application of best-practice process design.

ii. Diesel fume and particulates

The World Health Organization International Agency for Research on Cancer has classified diesel engine exhaust as carcinogenic to human, based on evidence that exposure is associated with an increased risk for lung cancer. On the basis that diesel fume has been classified as a carcinogenic, emissions from the combustion of diesel fuel should be considered in a manner consistent with the assessment approach for principal air toxics.

iii. Sulphur dioxide

Section (128)(2) of the Protection of the Environment Operations Act (POEO Act) states that “*The occupier of any premises must carry on any activity, or operate any plant, in or on the premises by such practicable means as maybe necessary to prevent or minimise air pollution*”. This is applicable in instances where neither a standard of concentration nor a rate has been prescribed. The *Protection of the Environment Operations (Clean Air) Regulation* does not prescribe a standard for emissions of sulphur dioxide emissions from diesel fired boilers. On that basis the guiding principle is the implementation of practicable means to prevent or minimise air pollution.

The EPA considers that robust justification for the selection of diesel fired boilers has not been provided and appears to be based solely on greenhouse gas transition pathways and cost. That is:

- Greenhouse gas comparisons between fuels have not been provided.
- The project seeks approval for the use of diesel fuel and is not proposed to operate on renewable diesel.
- The implementation of renewable diesel relies on the future development of a local domestic biodiesel fuel industry.
- The AQIA has not considered emissions, impacts and regulatory requirements for other air pollutants, including emissions of particulate matter, NO_x, SO₂ and air toxics (as discussed below).
- The justification has not been informed through benchmarking the proposed design and heating plant options against similar operations.

Request for Additional Information - Justification for the selection of diesel fired boilers and Minimising Air Pollutants.

The proponent must provide a more detailed, thorough, and robust justification for the proposed design of the heat supply plant having regard to:

- a) A greenhouse gas emissions comparison of the options assessed in Table 3A.
- b) Emission performances and regulatory requirements (particulate matter, SO₂, NO_x, toxics) for available technically feasible options, such as natural gas, electric, and LPG.
- c) Environmental impacts (particulate matter, SO₂, NO_x, toxics) of available technically feasible options, such as natural gas, electric, and LPG.
- d) Benchmarking proposed plant design and emission performance against other terminal operations that use heat to manage fluid transfers.

The justification must include a demonstration that the selected option from available technically feasible options is consistent with minimising principal air toxics through the application of best practice process design and/or emission control.

2. Demonstration that the Clean Air Regulation limits will be achieved has not been provided.

The *Protection of the Environment Operations (Clean Air) Regulation* (the Regulation) sets emission standards that must be achieved by point source discharges. The standards in the Regulation for fuel burning equipment using gas or liquid fuel are applied at specific reference conditions (dry, 273 K, 101.3 kPa and 7 % oxygen). Table 5-4 of the AQIA provides a comparison of boiler emissions against the standards contained in the Regulation. However, the stack concentrations provided are at the actual stack temperature and have not been corrected to the appropriate reference conditions.

The Regulation sets an emission standard for volatile organic compounds (VOCs) of 40 mg/m³ or 125 mg/m³ of carbon monoxide (CO). Compliance with either the VOC limit or the CO limit can be used to demonstrate compliance. Based on the emission rates and flow rate information presented for CO, EPA estimates a CO discharge concentration of greater than 2,000 mg/Nm³, which is significantly above the limit contained in the Regulation. Table 5-4 of the AQIA presents a discharge concentration for VOC's to demonstrate compliance with the Regulation, however it is unclear as to where the concentration was referenced or derived from. This includes how VOC's were corrected to n-propane equivalent.

The Approved Methods outlines that the EPA's preferred methods for estimating emissions and demonstrating compliance with the Regulation are manufacturers design specifications or performance guarantees. Such design specifications or guarantees should be used to demonstrate compliance with the Regulation.

Request for Additional Information – Clean Air Regulation Limit Compliance

Provide a robust demonstration that compliance with the emissions standards in the Clean Air Regulation can be achieved. The demonstrate must include provision of discharge concentrations at the appropriate reference conditions.

3. Exceedances of the PM₁₀ (24 hour) impact assessment criteria are predicted.

Table 8-4 of the AQIA provides the predicted PM₁₀ (24 hour) concentrations at assessed receptors. There are predicted exceedances of the impact assessment criteria. Existing air quality is a contributor to the predicted exceedances.

Section 5.1.3 of the Approved Methods outlines that in circumstances where existing ambient air pollutant concentrations may exceed the impact assessment criteria, a licensee must demonstrate that no additional exceedances of the impact assessment criteria will occur as a result of the proposed activity and that best management practices will be implemented to minimise emissions of air pollutants as far as is practicable.

Request for Additional Information – Additional PM₁₀ Exceedances

The EPA requests a revised AQIA to demonstrate that no additional exceedances of PM₁₀ (24 hour) will occur as a result of the proposal and particulate matter emissions are minimised as far as is practicable.

4. VOC emissions from the proposed heating plant have not been assessed.

The AQIA identifies emissions of VOCs from the diesel boilers, however, has not assessed the impacts from proposed VOC emissions. Assessment of VOC impacts from diesel storage has been undertaken, however cumulative impacts with VOC emissions from boilers has not been included in the AQIA.

Request for Additional Information – VOC Emissions Assessment from all Plant

The EPA requests a revised AQIA to include an assessment of impacts from all proposed sources at the premises (diesel storage and the 3.8 MW heating plant).

5. NO_x conversion method not described.

The AQIA assesses the impacts of NO₂ however does not describe the methodology for assessing conversion of NO_x to NO₂. For transparency the AQIA should be revised to describe the methodology for assessing NO₂.

Request for Additional Information

The EPA requests a revised AQIA to describe the methodology for assessing NO₂ impacts.